

# Optimization of cultivation media for heterologous gene expression of adamalysin-like metalloendopeptidase *Bacillus pumilus*

Rudakova N., Balaban N., Mardanov A., Chastukhina I., Sharipova M.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

## Abstract

© 2015 Rudakova et al. The paper is dedicated to selecting main components of the nutrient medium and additional sources of nutrients for the maximum production of adamalysin-like metalloproteinase *Bacillus pumilus*. For convenience, the gene of metalloproteinase MprBp was cloned in protein-deficient strain *B. subtilis* BG2036. During the study, optimal concentration of peptone, inorganic phosphate, and casein was selected. Besides, it was shown that the enzyme production is stimulated by kasamino acids, leucine, alanine, asparagine, glutamine, as well as calcium and magnesium ions.

---

## Keywords

Adamalysine-like, *Bacillus pumilus*, Culture fluid, Metalloproteinase, Optimization, Productivity